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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, TRAN N	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/686,705	<b>Applicant(s)</b> SAWANAGA ET AL.	
	<b>Examiner</b> Tran Nguyen	<b>Art Unit</b> 3626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,7,9-23,25-31,33-38,49 and 50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,9-23,25-31,33-38,49 and 50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

As per the Office Action mailed 06/23/2010:

All objection(s) and rejection(s) imposed therein is/are hereby maintained in view of Applicant's failure to adequately traverse this rejection.

***Priority***

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. 2002-303824 , filed 10/18/2002 in Japan, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application.

Claim 1 recites, in part:

a prediction unit connected to the network, configured to calculate an expectancy of the parameter data, which is a predicted parameter data value expected to be received in the future, and is calculated based on the stored parameter data;

All remaining claims recite limitations of similar scope. Examiner will treat claim 1 as representative.

Claim 1 requires the calculation of an “expectancy”, which the claim explicitly defines as “predicted parameter data value expected to be received in the future”. Furthermore, this “expectancy is “calculated based on the stored parameter data”.

As recited, data representing a predicted value to be received in the future is calculated from existing data.

Applicant does not point out, nor was Examiner able to find, support for this feature in the 2002-303824 application.

Therefore, Applicant’s claim for priority to application 2002-303824 is hereby denied because the 2002-303824 application does not provide support for the claimed feature.

Similar rationale applies to all remaining claims in the instant pending application.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 1-2, 6-7, 9-23, 25-31, 33-38, 49-50 is/are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 1, this claim recites "a medical equipment management apparatus" comprising a plurality of "units".

Examiner, in applying the broadest and most reasonable interpretation in view of the specification and the level of ordinary skill in the art, interprets "unit" to encompass software *per se* embodiments. While Examiner acknowledges that "unit" may also encompass statutory embodiments, the inclusion of nonstatutory embodiments renders the entire claim nonstatutory.

Therefore, claim 1 recites an apparatus comprising at least some software *per se* structural limitations, and is found to be directed towards nonstatutory subject matter.

All claims dependent thereon, namely claims 2, 6-7, 9-23, 25-30, 49-50 fail to remedy these deficiencies, and are therefore rejected for at least the same rationale above, and incorporated herein.

As per claim 31, this claim is rejected for substantially the same rationale as applied to claim 1 above, and incorporated herein.

In particular, this claim recites:

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- “a second reception unit... configured to receive a reference request for the date from a computer”;
- “a providing unit... configured to allow the computer to refer to information”.

While Examiner acknowledges that the claim recites a "computer", Examiner submits that the computer is not a claimed structure of the claimed apparatus.

Insofar as the “computer” is concerned, Examiner interprets this limitation to recite a functional limitation of the claimed apparatus.

As per claim 33, based upon consideration of all of the relevant factors with respect to the claim as a whole, claim(s) 33 is rejected as ineligible subject matter under 35 U.S.C. 101. The rationale for this finding is explained below:

Claim 33 recites a “method” claim. Therefore, the relevant factors for evaluating a method claim found here apply:

[http://www.uspto.gov/patents/announce/bilski\\_guidance.jsp](http://www.uspto.gov/patents/announce/bilski_guidance.jsp)

First, Examiner has determined that at least the “calculating” and “determining” steps are essential to the claimed methods. As recited, the claim does not require any machine for performing these essential steps. Therefore, the claim does not expressly or inherently require a machine in at least one essential step.

Second, the claim recites that “parameter data” is received, an “expectancy” is calculated from this received “parameter data”, the value of this “expectancy” is

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compared to a plurality of "threshold levels", and a "notification message" is issued responsive to a request for this "expectancy".

This recitation of data fails to amount to a specific "article" because the "parameter data" does not represent a tangible object, i.e. "parameter data is information regarding a status of a specific component of the medical equipment device".

A "status" of a tangible object is an abstract concept because the "status" does not actually represent the tangible object.

Therefore, there is no proper "transformation" because the claim fails the requisite for a proper specific "article". The remainder of the "transformation" test need not be discussed because there is no specific "article" to be transformed.

Third, the mechanism(s) by which the essential steps are implemented is/are subjective or imperceptible. In particular, the essential steps identified above do not require any machine, and therefore can be implemented by any machine or other intangible structure, e.g. the human mind.

Based on the relevant factors above, the claim is found to be directed towards nonstatutory subject matter.

As per claim 34, this claim is rejected for substantially the same rationale as applied to claim 33 above, and incorporated herein.

As per claim 35, Examiner acknowledges that this claim recites “a computer”; however, as discussed with respect to claim 33 above, the essential method steps do not require any particular “machine”, and therefore encompasses any structure capable of interfacing with the recited “computer”. In particular, the “calculating” and “determining” steps are performed without any recited structure.

As per claim 36, this claim is rejected for substantially the same rationale as applied to claim 1 above, and incorporated herein.

While Examiner acknowledges that the claim recites a “system” comprising a plurality of “apparatus” limitations, the claim does not recite any structure for these “apparatus” limitations.

Therefore, Examiner interprets “apparatus” to broadly encompass any structure capable of performing the recited functionality.

As discussed with respect to claim 1 above, Applicant is requested to provide a controlling definition for “apparatus” either from the specification as originally filed or from the level of ordinary skill in the art at filing.

Failing this, Applicant is suggested to amend the claim to recite hardware structures.

As per claim 37, this claim is similarly analyzed. In particular, “equipment” has not been defined as hardware equipment.



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As per claim 38, this claim is rejected for substantially the same rationale as applied to claim 1 above, and incorporated herein.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim(s) 1-2, 6-7, 9-17, 25, 27-28, 30, 33-34, 36-37, 49 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz (5786994) in view of Siegel (6970804).

As per claim 1, Friz teaches a performance monitoring system (Abstract) capable of monitoring a medical imaging system (reads on "a medical equipment management apparatus for managing a medical equipment") (column 1 line 11 and throughout), wherein the medical imaging system is located in a hospital (reads on "a medical

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facility) (column 2 line 50-51) and is capable of communicating with the remote performance monitoring system over modem (reads on "a network") (Figure 3 label 48), the system comprising:

(a) software (reads on "a reception unit") capable of:

(i) communicating with the medical imaging system over modem (Figure 3 label 46);

(ii) receiving data descriptive of the medical imaging system located at the hospital (reads on "parameter data") (Figure 3 label 46).

Friz does not teach:

the parameter data is information regarding a status of a specific component of the medical equipment;

Siegel teaches a system capable of monitoring the individual components of a system (Abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Siegel within the embodiment of Friz with the motivation of preventing machine failure (Siegel; column1 line 23).

Friz further teaches:

(b) memory (reads on "a storage unit") capable of communicating with the medical imaging system (Figure 3 label 48) and storing the received data (Figure 3 label 50);

(c) software (reads on "a prediction unit") capable communicating with the medical imaging system over modem (Figure 3 label 48) and predicting a future status of the medical imaging system based on the current data (Figure 3 label 54, 56).

In particular, Friz teaches that the system is capable of logging many types of errors (column 11 line 63-64).

According to Friz, the system is capable of determining when the system is out of paper, as discussed above and incorporated herein.

Therefore, Friz implicitly teaches that the system is capable of receiving an error message when the paper supply is depleted. Examiner considers paper supply to be a component of the equipment.

Siegel explicitly teaches monitoring machine components and predicting failure (Figure 1).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Siegel within the embodiment of Friz with the motivation of preventing machine failure (Siegel; column1 line 23).

Friz further teaches:

(d) software (reads on "a determination unit") capable of communicating with the medical imaging system over modem (Figure 3 label 48), wherein the software is capable of determining the future status of the medical imaging comprising:

(i) determining that the medical imaging system will run out of media by comparing the current data against a media threshold (reads on "a first predetermined threshold level") (column 15 line 4-10);

(ii) determining that the medical imaging system will be in an erroneous state by comparing the frequency of each type of error against a threshold (reads on “a second predetermined threshold level”, wherein an error is more serious than a refill order, and is therefore considered to be “exceeding the first threshold level”) (column 15 line 34-53);

(e) software (reads on “a second reception unit”) capable of communicating with the medical imaging system over modem (Figure 3 label 48) and providing a user with a usage report (Figure 3 label 54) and an error report (Figure 3 label 56) (reads on “a reference request for the expectancy”);

(f) software (reads on “a providing unit”) capable of communicating with the medical imaging system over modem (Figure 3 label 48) and providing the user with the usage report and error report (Figure 3 label 54, 56);

(g) software capable of ordering media (reads on “a notification message via the network to a first address”) when the media is low (reads on “the expectancy is determined to be between the first threshold level and the second threshold level”) (Figure 3 label 62) and ordering a technician (reads on “a second address”) when the frequency of a particular error indicates impending failure (reads on “the expectancy is determined to exceed the second threshold”) (Figure 3 label 60).

Siegel specifically teaches monitoring a plurality of components based on a plurality of thresholds, and contacting the appropriate service personnel (Figure 1).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Siegel within the embodiment of Friz with the motivation of preventing machine failure (Siegel; column1 line 23).

As per claim 2, Friz teaches that the software is capable of ordering a technician service call (Figure 3 label 60).

As per claim 6, Friz teaches graphically displaying (reads on "a graph") the media usage report and the error report containing therein timestamps (reads on "chronological order") (Figure 8-9).

As per claim 7, Friz teaches displaying a media usage report (column 15 line 14-33) separately from the request to order media (column 12 line 26-30). Similarly, Friz further teaches displaying an error report containing thereon recorded errors to supplement the technician order (column 15 line 33-61).

As per claim 9, Friz teaches sending a media order request when the media is low and no error (reads on "when the expectancy is determined to be between the first threshold level and the second threshold level), and a technician request when there is an impending fatal error (reads on "when the expectancy is determined to exceed the second threshold level"), as discussed above and incorporated herein.

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As per claim 10, Friz teaches a media order (reads on “without urgency” wherein the imaging system will continue to operate on low media) and a technician order (reads on “an urgent maintenance service” wherein an impending fatal error will prevent the imaging system from being used), as discussed above and incorporated herein.

As per claim 11, Friz teaches comparing the media usage value to a threshold (column 15 line 6) and the error frequency to a threshold (column 15 line 49-53).

Examiner considers comparing a known value to a threshold to predict the future status of the value to be “statistically analyzing”.

As per claim 12, Friz teaches storing data at different time intervals (column 11 line 45-65).

As per claim 13, Friz teaches media usage (Figure 8) and at least one machine component error (Figure 9 label ERROR DESCRIPTOR).

As per claim 14, Friz teaches that if no intervening action is taken, the imaging system will reach a certain condition, e.g. out of media, unusable (column 11 line 10-15, column 15 line 34-61).

As per claim 15, Friz teaches that the future condition of the imaging system may be predicted (reads on "the predetermined time is designated"), as discussed above and incorporated herein.

As per claim 16, Friz teaches that the system is capable of providing the media and technician orders (reads on "expectancy") through a computer network (Figure 3 label 60, 62).

As per claim 17, this claim is rejected for substantially the same rationale as applied to claim 16 above, and incorporated herein.

In particular, the "expectancy" *per se* is considered to be "information of the medical equipment". Therefore, the applied art need not teach any additional information to meet this limitation.

As per claim 25, Friz teaches that a technician is capable of obtaining system data (column 15 line 54-61).

As per the set of claim(s): 27, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 25, respectively, and incorporated herein.

In particular, Examiner considers the technician system to be part of the remote performance monitoring system, and is therefore considered to be “a computer provided in the apparatus”.

As per the set of claim(s): 28, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 6, respectively, and incorporated herein.

As per claim 30, Friz teaches periodically polling the equipment (column 3 line 23-33).

As per the set of claim(s): 33, 34, 36, 37, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 1, 1, 1, 1, respectively, and incorporated herein.

As per claim 49, Friz teaches email (column 12 line 16).

Claim(s) 18, 29 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz in view of Siegel as applied to parent claims 16, 1 above, and further in view of Applicant Admitted Prior Art (AAPA).

It is noted that the official notice taken in a previous Office Action is taken to be AAPA because Applicant failed to adequately traverse Examiner's assertion.



As per claim 18, Friz and Siegel do not teach “an Internet web site”.

AAPA teaches that displaying data on a Web site accessible via the Internet is old and well established in any art.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of AAPA within the embodiment of Friz and Siegel with the motivation of providing accessible data to remote computers.

As per claim 29, Friz teaches that manual generation of reports by a technician is known in the art (column 3 line 31-32). Friz further teaches automatic periodic polling to eliminate the need for manual report generation (column 3 line 23-33).

Friz and Siegel do not teach “calculates the expectancy in response to the reception of the reference request”.

AAPA teaches that during machine maintenance, it is old and well established in the art to manually run a status report between periodic polling periods.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of AAPA within the embodiment of Friz and Siegel with the motivation of obtaining the most current equipment status before the next polling period, such feature would be useful when performing diagnostics or generating management reports, wherein the status is desired immediately before the next polling interval.

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Claim(s) 19, 21-23 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz in view of Siegel as applied to parent claims 1, 2 above, and further in view of Lie (An Algorithm for Preventive Maintenance Policy, mailed 01/26/2009).

As per claim 19, Friz teaches that the system is capable of determining the future status of the imaging system by comparing the error frequency against a threshold to prospectively identify errors and correct them before the user is affected (column 15 line 34-61).

Examiner considers this type of maintenance to be "preventive maintenance", wherein the system is repair prior to any user complaint.

Friz and Siegel do not teach "determines the value based on the stored maintenance contract information".

Lie teaches two types of preventive maintenance: 1P and 2P (page 71 column 1 paragraph 2). Lie further teaches that the optimum preventive maintenance policy comprises doing 1P maintenance until a particular time, and then switching to 2P maintenance (page 74 section 2.5).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Lie within the embodiment of Friz and Siegel with the motivation of providing the optimum preventive maintenance policy (Lie; page 74 section 2.5).

As per the set of claim(s): 21, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 19, respectively, and incorporated herein.

As per claim 22, Friz teaches reporting errors and ordering technician service, as discussed above and incorporated herein.

Friz and Siegel do not teach:

(a) "a first content when the stored maintenance information is a first type and the expectancy is determined to exceed the second threshold level";

(b) "a second content when the stored maintenance information is the first type and the expectancy is determined to be between the first threshold level and the second threshold level";

(c) "a third content when the stored maintenance contract information is a second type and the expectancy is determined to exceed the second threshold level";

(d) "does not issue the notification message when the stored maintenance contract information is the second type and the expectancy is determined to be between the first threshold level and the second threshold level".

Lie teaches preventive maintenance when the system is operating (reads on "a first threshold level") and corrective maintenance when the system is failed (reads on "a second threshold level") (page 71 column 1 Section 1 paragraph 2).

Examiner considers the status of a system requiring corrective maintenance to "exceed" the status of a system requiring only preventive maintenance because the

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failed system is failed, and is considered to be more serious than a system requiring only routine maintenance.

Lie further teaches:

(a) issuing a corrective maintenance request (reads on “a first content when the stored maintenance information is a first type and the expectancy is determined to exceed the second threshold level”) (page 71 column 1 Section 1 paragraph 3-4);

(b) issuing a preventive maintenance request when the system is in a 2P state (reads on “a second content when the stored maintenance information is the first type and the expectancy is determined to be between the first threshold level and the second threshold level”) (page 71 column 2 paragraph 1-2);

(c) issuing a simple preventive maintenance request when the system is in a 1P state (reads on “a third content when the stored maintenance contract information is a second type and the expectancy is determined to exceed the second threshold level”) (page 71 column 2 paragraph 1-2);

(d) the system omitting some service requests when the system is in a 1P state (reads on “does not issue the notification message when the stored maintenance contract information is the second type and the expectancy is determined to be between the first threshold level and the second threshold level”).

In particular, Examiner considers the 2P state to be “a first type” and the 1P state to be “a second type”. Accordingly, the 1P service request omits some elements that would otherwise be covered in the 2P service request.

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Additionally, the claim does not require that the "first", "second", and "third" content actually be different content. Therefore, a single content alone would cover all claimed embodiments regardless of the state of the expectancy and the contract information.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Lie within the embodiment of Friz and Siegel with the motivation of providing the optimum preventive maintenance policy (Lie; page 74 section 2.5).

As per the set of claim(s): 23, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 22, respectively, and incorporated herein.

In particular, Examiner considers the 1P and 2P states to be "a determining condition", wherein the system switches from one to the other and affects the type of service requests recorded by the system (Lie; page 74 column 1 Section 2.5).

Claim(s) 20 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz in view of Siegel and Lie as applied to parent claim 19 above, and further in view of Babula (6381557).

As per claim 20, Friz, Siegel, and Lie do not teach "an external terminal".

Babula teaches a field service unit capable of accessing service data (Figure 5).

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At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Babula within the embodiment of Friz, Siegel, and Lie with the motivation of enabling technicians to adjust the maintenance policy remotely.

Claim(s) 26 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz in view of Siegel as applied to parent claim 1 above, and further in view of Babula.

As per claim 26, Friz teaches that the performance monitoring system is remote from the imaging system (Figure 3 label 46).

Friz and Siegel do not teach "a computer provided in the medical facility".

Babula teaches a field service unit capable of accessing service data (Figure 5).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Babula within the embodiment of Friz and Siegel with the motivation of enabling technicians to adjust the maintenance policy remotely.

Claim(s) 31, 35, 38 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Ridolfo (6735549) in view of Friz, Siegel and Mairs (5874960).

As per claim 31, Ridolfo teaches a system capable of predicting the date of failure for plant equipment over a network (Figure 2 label 7).

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Ridolfo does not teach "medical equipment".

Friz teaches predicting the error conditions of medical imager (Abstract and throughout).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Friz within the embodiment of Ridolfo with the motivation of ensuring that equipment is repaired, refurbished, or replaced before the equipment fails (Ridolfo; column 5 line 7-14, Friz; column 15 line 54-57).

Ridolfo further teaches that the system comprises:

(a) a data acquisition system (reads on "a reception unit") capable of accessing the plant equipment over network (reads on "receive parameter data") (Figure 2 label 2).

Siegel teaches monitoring the components of a machine and predicting failure based on a plurality of threshold (Figure 1).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Siegel within the embodiment of Ridolfo and Friz with the motivation of ensuring that equipment is repaired, refurbished, or replaced before the equipment fails (Ridolfo; column 5 line 7-14, Friz; column 15 line 54-57).

Ridolfo further teaches:

(b) a digital computer (reads on "a storing unit") capable of storing the acquired data (Figure 2 label 3);

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(c) a probability-of-failure predictor module (reads on “a prediction unit”) capable of communicating with the network and predicting the probability of failure based on the acquired data (Figure 2 label 5);

(d) a date-of-failure predictor module (reads on “a determination unit”) capable of communicating with the network and determining the date when the plant equipment is predicted to fail (Figure 2 label 6);

(e) an engineering workstation capable of requesting the date of failure via the network (Figure 2 label 8);

(f) software capable of providing the date (Figure 2 label 6);

(g) a video display unit capable of displaying the date (Figure 2 label 8).

Ridolfo and Friz do not teach "a second computer".

Mairs teaches a remote desktop application capable of sharing an application between a plurality of computers (Abstract and throughout).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Mairs within the embodiment of Ridolfo, Friz, and Siegel with the motivation of sharing an application with a remote user at a shadow computer system (Mairs; column 1 line 20-23).

As per the set of claim(s): 35, 38, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 31, 31, respectively, and incorporated herein.



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Claim 50 is rejected under 35 USC 103(a) as being unpatentable over Friz in view of Siegel as applied to parent claim 1 above, and further in view of Ricq (Study of CdTe and CdZnTe detectors for X-ray computed tomography, mailed 09/21/2009).

As per claim 50, Friz teaches CT machine (column 6 line 64). Friz further teaches monitoring errors in any part of the system operation, as discussed above and incorporated herein.

Friz and Siegel do not teach "a bias voltage level".

Ricq teaches that a bias voltage level is well known in the art as affecting the operation of a CT machine (page 537 column 1 paragraph 2 and throughout).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Ricq within the embodiment of Friz and Siegel with the motivation of monitoring CT machine operation.

### ***Response to Arguments***

Applicant's arguments filed 09/13/2010 have been fully considered but they are not persuasive.

On page 2-3 Applicant argues:

The Official Action has noted that the Related Case Statement filed on March 8, 2010 fails to comply with the provisions of 37 C.F.R. §§1.97, 1.98 and M.P.E.P. §609. In this regard, Applicants note that the Related Case Statement filed is not an Information Disclosure Statement. As Applicants are not relying on the Examiner to be aware of a particular application belonging to the same Applicant and assignee, Applicants have submitted this material in accordance with M.P.E.P. §2004 paragraphs 9 and 10. As Applicants have

furnished this information to the Examiner as a courtesy, and no such format is required of such information, Applicants respectfully submit that no further corrective action is required.

Applicant appears to be asserting that the Related Case Statement filed on 03/08/2010 is not an IDS.

Applicant's attention is directed to the Official file.

The Transmittal Letter filed on 03/08/2010 reads as follows:

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Docket No. 243643US27TC

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Yuji SAWANAGA, et al.

SERIAL NO. 10/686,705

GAU: 3626

FILED: October 17, 2003

EXAMINER: NGUYEN, TRAN N

FOR: MEDICAL EQUIPMENT MANAGEMENT APPARATUS WHICH PREDICTS FUTURE STATUS OF MEDICAL EQUIPMENT

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

**REFERENCES**

- ☐ The applicant(s) wish to make of record the reference(s) listed on the attached form PTO-1449 and/or accompanying documents from a corresponding foreign application. Copies of the listed reference(s) are attached, where required, as are either statements of relevancy or any readily available partial or full English translations of pertinent portions of any non-English language reference(s).
- ☐ Credit card payment is being made online (if electronically filed), or is attached hereto (if paper filed), in the amount required under 37 CFR §1.17(p).

**RELATED CASES**

- ☒ Attached is a list of applicant's pending application(s), published application(s) or issued patent(s) which may be related to the present application. In accordance with the waiver of 37 CFR 1.98 dated September 21, 2004, copies of the cited pending applications are not provided. Cited published and/or issued patents, if any, are listed on the attached PTO form 1449.

The communication filed therewith on 03/08/2010 reads as follows:

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		Docket No.: 243643US2TTC		Serial No.: 10/686,705	
LIST OF RELATED CASES CITED BY APPLICANT UNDER 37 CFR 1.56		Inventor: Yuuji SAWANAGA, et al.			
		Filing Date: October 17, 2003		Group: 3626	
<b><u>LIST OF RELATED CASES</u></b>					
<u>Examiner Initial</u>	<u>Docket No.</u>	<u>Serial or Patent Number</u>	<u>Filing or Issue Date</u>	<u>Patent App. Publication No.</u>	<u>Inventor or Applicant</u>
	243643US2TTC*	10/686,705	10/17/03	2004/0138920	SAWANAGA, et al.
	352105US2X	12/633,282	12/08/09		SAWANAGA
Examiner		Date Considered			

The Fee Worksheet submitted therewith on 03/08/2010 reads as follows:

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Sheet	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>

A summary of the evidence in the Official file as follows:

On 03/08/2010, Applicant submits a transmittal letter specifying that the attached document is an IDS. Furthermore, Applicant paid the proper fees and indicated that the submission is an IDS.

On 09/13/2010, Applicant asserts that the attached document as filed on 03/08/2010 is NOT an IDS.

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Applicant's latter assertion is inconsistent with the Official file as presented above.

Applicant is requested to clarify why Applicant no asserts that the previously asserted document is or is not an IDS.

For purposes of addressing the argument, Examiner will assume *arguendo* that the document filed on 03/08/2010 is an IDS pending Applicant's positive resolution of this issue.

Applicant asserts that this document has been submitted in compliance with MPEP 2004 paragraph 9-10.

The cited portion of the MPEP reads as follows:

9. Do not rely on the examiner of a particular application to be aware of other applications belonging to the same applicant or assignee. It is desirable to call such applications to the attention of the examiner even if there is only a question that they might be "material to patentability" of the application the examiner is considering. >See *Dayco Prod., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1365-69, 66 USPQ2d 1801,

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1806-08 (Fed. Cir. 2003) (contrary decision of another examiner reviewing substantially similar claims is material'; copending application may be material' even though it cannot result in a shorter patent term, when it could affect the rights of the patentee to assign the issued patents). < It is desirable to be particularly careful that prior art or other information in one application is cited to the examiner in other applications to which it would be material. Do not assume that an examiner will necessarily remember, when examining a particular application, other applications which the examiner is examining, or has examined. \*\*>A "lapse on the part of the examiner does not excuse the applicant." < *KangaROOS U.S.A., Inc. v. Caldor, Inc.*, 778 F.2d 1571, 1576, 228 USPQ 32, 35 (Fed. Cir. 1985)\*\*>; see also MPEP § 2001.06(b). <

10. When in doubt, it is desirable and safest to submit information. Even though the attorney, agent, or applicant doesn't consider it necessarily material, someone else may see it differently and embarrassing questions can be avoided. The court in *U.S. Industries v. Norton Co.*, 210 USPQ 94, 107 (N.D. N.Y. 1980) stated "In short, the question of relevancy in close cases, should be left to the examiner and not the applicant." See also *LaBounty Mfg., Inc. v. U.S. Int 'l Trade Comm 'n*, 958 F.2d 1066, 22 USPQ2d 1025 (Fed. Cir. 1992).

This portion discusses Applicant's duty to disclose; however, it does not exempt Applicant from providing a proper IDS for Examiner's consideration.

37 CFR 1.56(a) reads as follows:

not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by § 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in

Rule 1.97(b)-(d) reads as follows:

- (b) An information disclosure statement shall be considered by the Office if filed by the applicant within any one of the following time periods:
  - (1) Within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d);
  - (2) Within three months of the date of entry of the national stage as set forth in § 1.491 in an international application;
  - (3) Before the mailing of a first Office action on the merits; or
  - (4) Before the mailing of a first Office action after the filing of a request for continued examination under § 1.114.
- (c) An information disclosure statement shall be considered by the Office if filed after the period specified in paragraph (b) of this section, provided that the information disclosure statement is filed before the mailing date of any of a final action under § 1.113, a notice of allowance under § 1.311, or an action that otherwise closes prosecution in the application, and it is accompanied by one of:
  - (1) The statement specified in paragraph (e) of this section; or
  - (2) The fee set forth in § 1.17(p).
- (d) An information disclosure statement shall be considered by the Office if filed by the applicant after the period specified in paragraph (c) of this section, provided that the information disclosure statement is filed on or before payment of the issue fee and is accompanied by:
  - (1) The statement specified in paragraph (e) of this section; and
  - (2) The fee set forth in § 1.17(p).

Rule 198 reads in part as follows:

**§ 1.98 Content of information disclosure statement.**

- (a) Any information disclosure statement filed under § 1.97 shall include the items listed in paragraphs (a)(1), (a)(2) and (a)(3) of this section.

- (2) A legible copy of:
  - (i) Each foreign patent;
  - (ii) Each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office;
  - (iii) For each cited pending unpublished U.S. application, the application specification including the claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion; and
  - (iv) All other information or that portion which caused it to be listed.

In the document filed on 03/08/2010, Applicant asserted therein that the document complies with 37 CFR 1.56.

37 CFR 1.56 deems that the duty to disclose is met if all materials are either: a) cited by the Office, or b) submitted to the Office in the manner prescribed by Rule 197(b)-(d) and 1.98.

Rule 197(b)-(d) discuss the formalities of an IDS.

Rule 1.98 specifically requires a legible copy of each cited pending unpublished US application's specification, claims, and drawings, or relevant portions thereof. This is found explicitly in 37 CFR 1.98 (a)(2)(iii).

Applicant's attention is further directed towards 37 CFR 1.98 (a)(2)(ii). This section reserves the right of the Office to require legible copies of US patents and patent-publication.



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Based on the evidence above, Applicant is required to provide the relevant portions of application 12633282 under 37 CFR 1.98 (a)(2)(ii-iii).

On page 3-4 Applicant argues:

In response to the rejection of Claims 1, 2, 6, 7, 9-23, 25-31, 33-38, and 49-50 under 35 U.S.C. § 101, page 4 of the outstanding Office Action asserts that even though Claim 1 recites a medical equipment management apparatus, this claim is nonstatutory as the Office Action interprets "unit" to encompass software *per se* embodiments. In addition, page 5 of the outstanding Office Action states that "Claim 1 recites an apparatus comprising at least some software *per se* structural imitations, and is found to be directed towards nonstatutory subject matter." In response, Applicants note that even if the subject invention were implemented 100% in software, that would not be an adequate basis in law for a 101 rejection, in consideration of the CCPA decision, in *In re Bernhart*, 163 USPQ 611 (C.C.P.A. 1969) which stated the following:

To this question we say that if a machine is programmed in a certain new and unobvious way, it is physically different from the machine without that program; its memory elements are differently arranged. The fact that these physical changes are invisible to the eye should not tempt us to conclude that the machine has not been changed. If a new machine has not been invented, certainly a "new and useful improvement" of the unprogrammed machine has been, and Congress has said in 35 U.S.C. §101 that such improvements are statutory subject matter for a patent. It may well be that the vast majority of newly programmed machines are obvious to those skill in the art and hence unpatentable under 35 U.S.C. §103. We are concluding here that such machines are statutory under 35 U.S.C. §101.... [2]

The Federal Circuit in *In re Alappat*, 31 USPQ2d 1545 (Fed. Cir. 1994), at page 1157 reiterated the essence of the *Bernhart* decision, stating:

"The reconsideration Board majority also erred in its reasoning that claim 15 is unpatentable merely because it "reads on a general purpose digital computer

'means' to perform the various steps under program control." ... The Board majority stated that it would "not presume that a stored program digital computer is not within the Section 112 Para. 6 range of equivalents of the structure disclosed in the specification."<sup>26</sup> ... Alappat admits that claim 15 would read on a general purpose computer programmed to carry out the claimed invention, but argues that this alone also does not justify holding claim 15 unpatentable as directed to nonstatutory subject matter. We agree. **We have held that such programming creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software.** *In re Freeman*, 573 F.2d 1237, 1247 n.11, 197 USPQ 464, 472 n.11 (CCPA 1978); *In re Noll*, 545 F.2d 141, 148, 191 USPQ 721, 726 (CCPA 1976); *In re Prater*, 415 F.2d at 1403 n.29, 162 USPQ at 549-50 n.29.

<sup>26</sup> The disclosed ALU, ROM and shift registers are all common elements of stored program digital computers. **Under the Board majority's reasoning, a programmed general purpose computer could never be viewed as patentable subject matter under Section 101. This reasoning is without basis in the law. The Supreme Court has never held that a programmed computer may never be entitled to patent protection. Indeed, the *Benson* court specifically stated that its decision therein did not preclude "a patent for any program servicing a computer." *Benson*, 409 U.S. at 71. Consequently, a computer operating pursuant to software may represent patentable subject matter, provided, of course, that the claimed subject matter meets all of the other requirements of Title 35. "** (Emphasis added, some citations and footnotes omitted)

Thus, contrary to what appears to be a significant aspect of the outstanding grounds for rejection under 35 USC §112, 2nd para., and 35 USC §101, software claims are not per se unpatentable. The cited case law directed to software cases is believed to vigorously refute any such contention. Furthermore, there is nothing in the MPEP, 37 CFR, 35 USC or the case law which supports the position that software claims are per se nonstatutory.

It is noted that in making this argument, Applicant does not dispute that the claim envelops software *per se*. Applicant is only making arguments towards software *per se* embodiments being statutory.

The *In re Bernhart* decision involves a machine. In the instant pending application, there is no machine. Therefore, the fact pattern of *Bernhart* is not germane to the rejected claims in the instant pending application.

In the *In re Alappat* decision, the decision applies to the invocation of 35 USC 112, sixth paragraph. This is not germane to the rejected claims in the instant pending application because no rejection was imposed based on 35 USC 112, sixth paragraph.

Regarding the patent eligibility of a programmed digital computers, this rationale also does not apply to the instant pending claims because the instant pending claims do not have any machine.

On page 4-5 Applicant argues:

Indeed, MPEP 2106.01, which the Examining Corps is required to follow, states:

... USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. **Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material *per se* and hence nonstatutory.** (emphasis added)

Accordingly, a rejection under 35 USC §101 on the basis that software is *per se* nonstatutory is itself an improper refutation of this statement of the MPEP.

In this case, there is no machine recited as being part of the claimed system. Therefore, the software *per se* modules recited are found to be directed only at the modules themselves, and not any requisite hardware or other tangible storage.

Therefore, software *per se* systems are not statutory.

On page 5 Applicant argues:

In regard to independent method Claims 33-35, pages 5-6 of the outstanding Office Action asserts that these claims are nonstatutory due to the claims failing the "machine or transformation" test. Applicants respectfully disagree. In the recent Supreme Court case, *In re Bilski*, the Court indicated that the machine or transformation test is not the sole test for determining whether or not a method claim is statutory. The Court indicated that method claims are nonstatutory if they are directed towards an abstract idea, laws of nature, or physical phenomenon.

Initially, Applicants respectfully submit that Claims 33-35 are not directed towards an abstract idea, as the method is for managing a medical equipment device, and thus the method is tied to a medical equipment device, which is a particular machine. In addition, the method is tied to hardware components such as a memory. The steps recited in the claims cannot be performed solely in a person's head.

Exhaustive detail, including the location where Applicant may find the official 101 guidelines, has been provided above for Applicant's consideration.

Applicant is requested to appeal the 101 rejection for BPAI guidance.

On page 6 Applicant argues:

It is respectfully noted that the publication date of Siegel, June 17, 2004, is after the effective filing date of the present application, October 17, 2003. Therefore, Siegel is not prior art with respect to the present application under 35 U.S.C. §§ 102(a) or 102(b).

With regard to 35 U.S.C. § 102(e), the present application claims priority to Japanese Patent Application No. 2002-303824, filed October 18, 2002. In accordance with 37 C.F.R. § 1.55(a)(4), enclosed please find an English translation of the certified copy of this application, along with a statement that the translation is accurate. It is respectfully submitted that the enclosed document perfects the claim to priority to Japanese Patent Application No. 2002-303824 under 35 U.S.C. § 119. Further, it is respectfully submitted that the subject matter of pending Claims 1, 2, 6, 7, 9-23, 25-31, 33-38, 49, and 50 are supported by the specification of this priority document. As the filing date of Japanese Patent Application No. 2002-303824 (October 18, 2002) antedates the filing date of December 17, 2002 of Siegel, it is respectfully submitted that Siegel does not qualify as prior art with respect to the claims of the present application under 35 U.S.C. § 102. Accordingly, Siegel may not be used in the rejection of any of Claims 1, 2, 6, 7, 9-23, 25-31, 33-38, 49, and 50. Therefore, all rejections of these claims based on Siegel are traversed.

As discussed above, all claims require the concept of calculating an "expectancy" which represents future data that will be received.

In the English translation submitted by Applicant for the 2002-303824 application, there is no disclosure of calculating this "expectancy". At best, the priority document discloses receiving a parameter data, and comparing this parameter data to a plurality of threshold.

There is no disclosure of calculating any "expectancy" from the received parameter data.

Accordingly, Applicant's claim to priority is invalid. The applied art qualifies as prior art. The rejection is hereby maintained.

### ***Conclusion***

The new ground(s) of rejection presented in this Office action, if any, was/were necessitated by Applicant's amendment. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran (Ken) N. Nguyen whose telephone number is 571-270-1310. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:00 pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Morgan can be reached on 571-272-6773. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. N./

Examiner, Art Unit 3626

10/07/2010

/C. Luke Gilligan/

Primary Examiner, Art Unit 3626